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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO.       |
|---|-------------|----------------------|---------------------------|------------------------|
| 10/511,091  | 10/14/2004  | Ryutaro Hashi        | L9289.04161               | 6147                   |
| 24257 7590 11/27/2007<br>STEVENS DAVIS MILLER & MOSHER, LLP<br>1615 L STREET, NW<br>SUITE 850<br>WASHINGTON, DC 20036 |             |                      | EXAMINER<br>LAM, JOSEPH M |                        |
|   |             |                      | ART UNIT<br>4183          | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>11/27/2007   | DELIVERY MODE<br>PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/511,091

Applicant(s)

HASHI ET AL.

Examiner

Joseph M. Lam

Art Unit

4183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Oct. 14, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>Oct. 14, 2004</u>   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

The pending claims 1-7 are presented for examination.

Claims 1-7 are rejected.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1, 6, 7 are rejected under 35 U.S.C 102(e) as being anticipated by Pohjakallio (US 005590133 A1).

**Regarding claim 1**, Pohjakallio teaches a communication apparatus for use in a communication system that requires establishment of a link to transmit information between a transmitting side and a receiving side, comprising (see figure 3, 4) a transmitting section that transmits information data that contains a predetermined amount of information (see column 3, line (37 – 49)); and a requesting section that, before termination of a link for information data transmitted currently (see column 5, line 29 – 39); requests the establishment of a link for transmitting next information data (see figure 3, column (30 – 57)).

Art Unit: 4183

**Regarding claim 6**, Pohjakallio further teaches a communication apparatus wherein the requesting section requests the establishment of a link by bi-directional simultaneous transmission using divisional multiple access (see figure 2A, 2B, 2C, 2D, and figure 9, column 8, line 19 – 50).

**Regarding claim 7**, pohjakallio further teaches a communication method for use in a communication system that requires establishment of a link to transmit information between a transmitting side and a receiving side, comprising the steps of: transmitting information data that contains a predetermined amount of information ( see column 3, line 37 – 49); and before termination of a link for the transmitted ( see column 5, line 29 – 39)

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claims 2 – 5** are rejected under 35 U.S.C. § 103 (a) as being unpatentable as obvious over pohjakallio (U.S. 005502721 A) as applied to claim 1 in view of takabatake et al. (US 6993005 B2).

**Regarding claim 2**, Pohjakallio does not teach the communication apparatus, wherein the requesting section comprises: a link establish data generating section that generates link establish data for requesting the establishment of a link ; a control section that controls the link establish data generating section to generate the link establish data for establishing a link for the transmission of information data to be sent next ; and a transmitter section that transmits the generated link establish data immediately after said transmitting section transmits the information data.

**Regarding claim 3**, Pohjakallio does not teach the communication apparatus, wherein the requesting section comprises: a link establish data generating section that generates link establish data for requesting the establishment of a link; a control section that controls said link establish data generating section to generate the link establish data for establishing a link for the transmission of information data to be sent next; a multiplexing section that multiplexes the generated link establish data and the information data to be transmitted currently by said transmitting section; and a transmitter section that transmits the multiplexed information data and link establish data.

**Regarding claim 4**, pohjakallio does not teaches the communication apparatus wherein the multiplexing section multiplexes the link establish data and the information data by using at least one of frequency division multiplexing, time division multiplexing, and code division multiplexing (figure 10, element 25, 31 ), and (column 5, line 14 – 28).

**Regarding claim 5**, Pohjakallio does not teaches a communication apparatus, wherein the requesting section requests the establishment of a link by full duplex communication which simultaneously performs transmission and reception.

However, Takabatake et al. teaches a communication apparatus, wherein the requesting section comprises: a link establish data generating section that generates link establish data for requesting the establishment of a link (See figure 2, element radio terminal 901, and radio terminal 902); a control section that controls the link establish data generating section to generate the link establish data for establishing a link for the transmission of information data to be sent next (see figure 16 element 641, 631); and a transmitter section that transmits the generated link establish data immediately after said transmitting section transmits the information data (see figure 16, element 632).

Moreover, Takabatake et al. teaches a communication apparatus, wherein the requesting section comprises: a link establish data generating section that generates link establish data for requesting the establishment of a link (See figure 2, element “radio terminal 901, and radio terminal 902”); a control section that controls said link

Art Unit: 4183

establish data generating section to generate the link establish data for establishing a link for the transmission of information data to be sent next (see figure 16, element 641, 631); multiplexing section that multiplexes the generated link establish data and the information data to be transmitted currently by said transmitting section (column 24 – 26, figure 2, element “radio terminal device 901, 902, protocol device as being multiplexing section); and a transmitter section that transmits the multiplexed information data and link establish data (column 10, line 33 – 41), and (figure 16, element 631, 631, 633).

Further more, Takabatake et al. teaches the communication apparatus wherein the multiplexing section multiplexes the link establish data and the information data by using at least one of frequency division multiplexing, time division multiplexing, and code division multiplexing (figure 10, element 25, 31 ), and (column 5, line 14 – 28)

Further more, Takabatake et al. teaches the communication apparatus, wherein the requesting section requests the establishment of a link by full duplex communication which simultaneously performs transmission and reception ( see figure 2, element “radio terminal 901, 902).

Takabatake et al. discloses the above difference for the purpose of improving average transmission rate while preventing deterioration of the accuracy of information communication.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to combine the teaching Pohjakallio and Takabatake et al., in order to enhance the transmission rate which are capable of executing the control

Art Unit: 4183

protocol by expanding it over to a radio network for executing data transfer after establishing a logical connection between radio terminal

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Billstrom et al. (US-5,590,133 A), and Yu (US-2001/00436003 A) references are also cited to show related art.

### ***Inquiry***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph M. Lam whose telephone number is 571-270-1959. The examiner can normally be reached on Monday to Thursday from 7:30 to 5:30 eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on 571- 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 4183

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nov. 21, 2007

Examiner: Joseph Lam  
AU: 4183

*Joseph Lam*

*Supervising*  
*Len Tran*  
**LEN TRAN**  
**PRIMARY EXAMINER**  
*11/26/07*